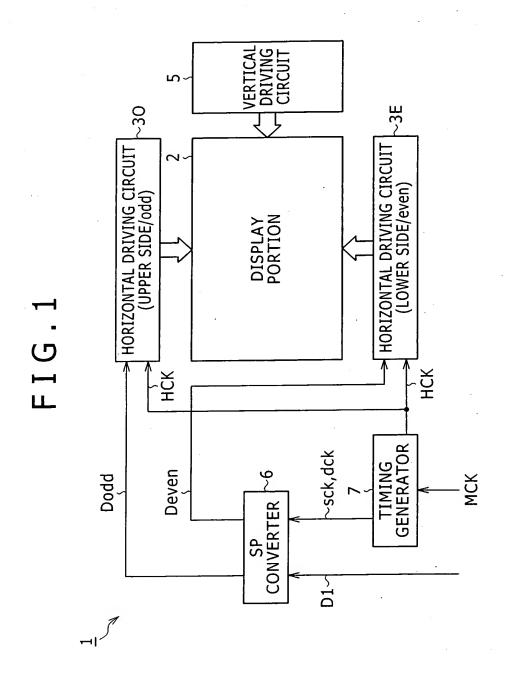
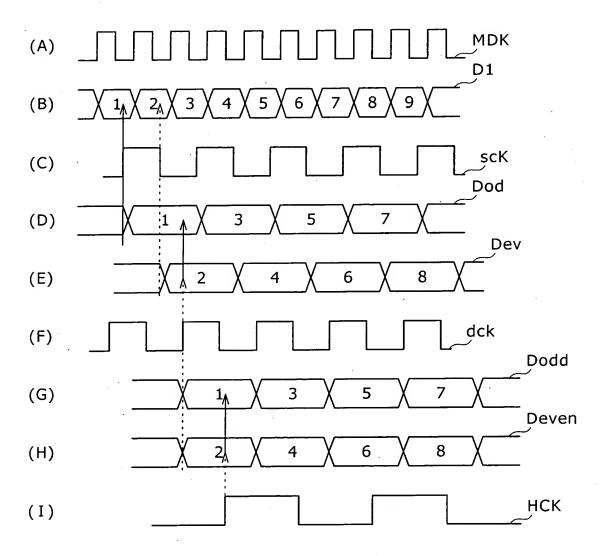
1/11

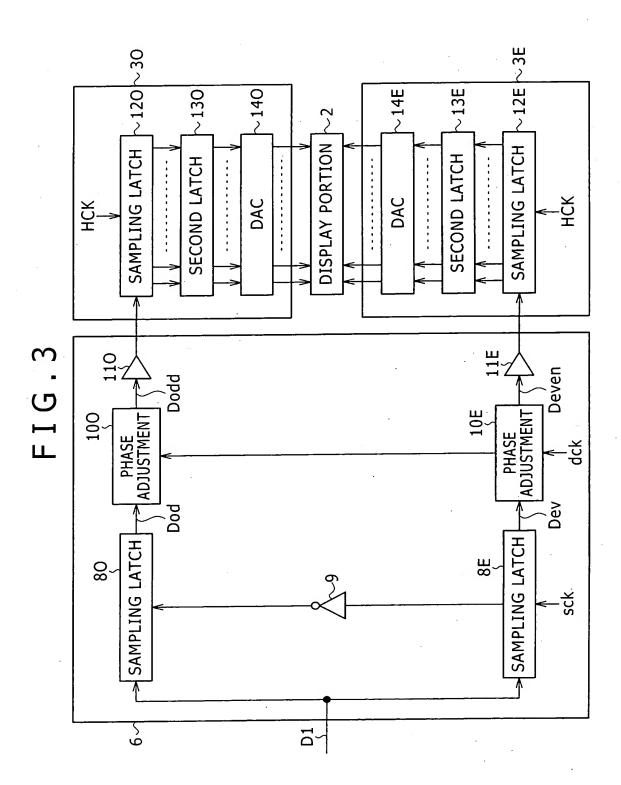


2/11

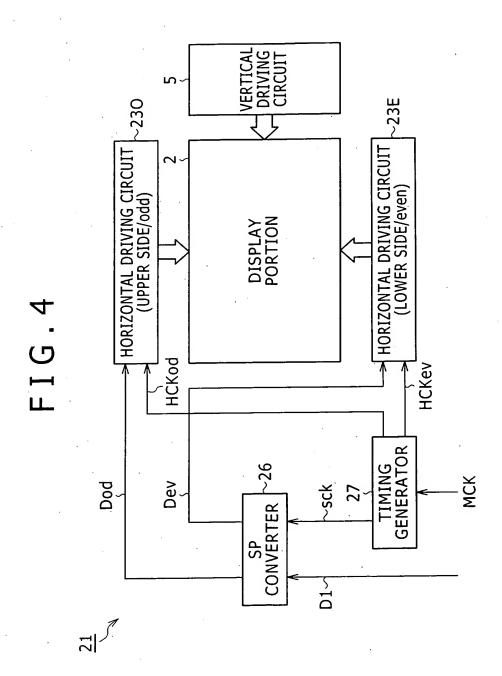
FIG.2



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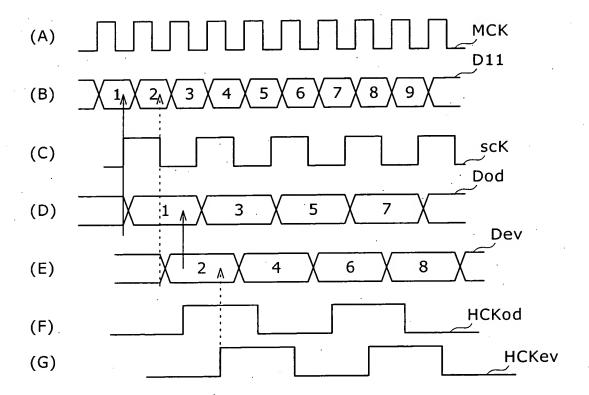


4/11

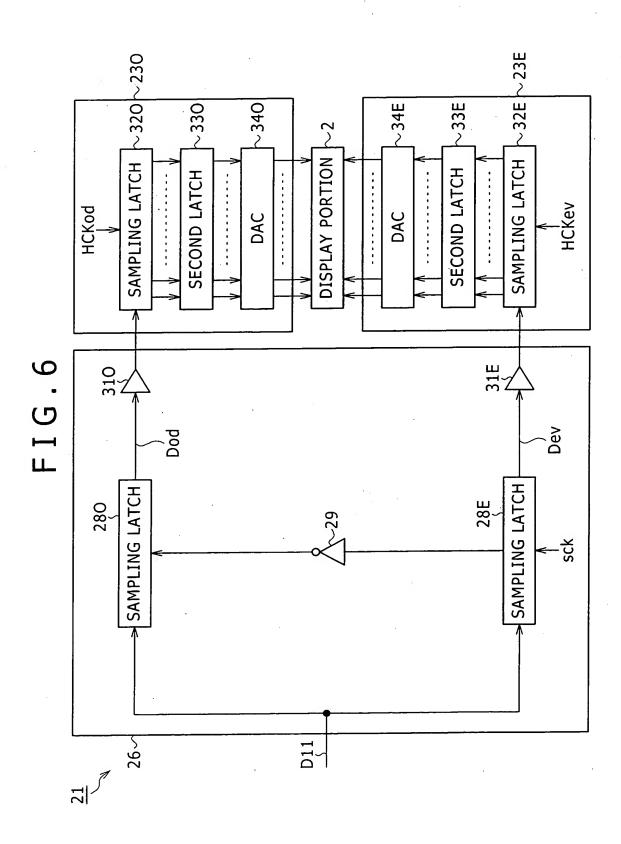


5/11

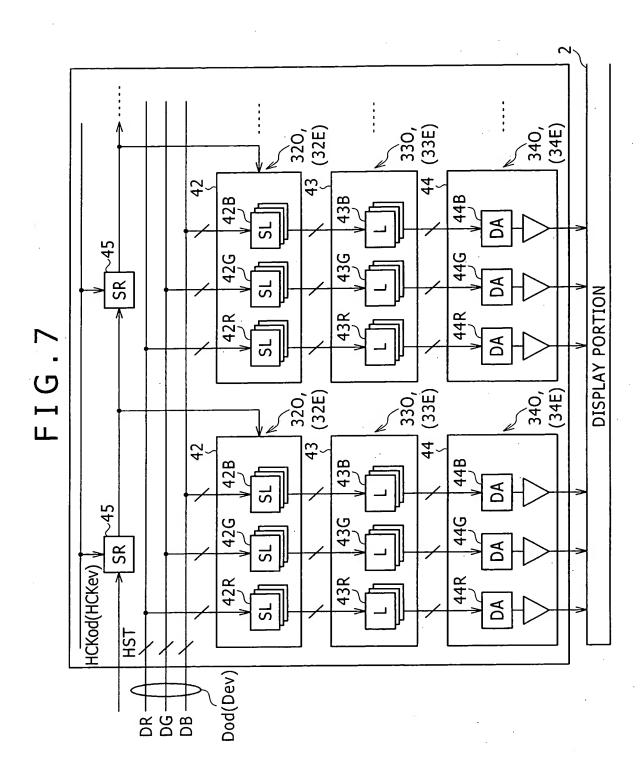
F I G . 5



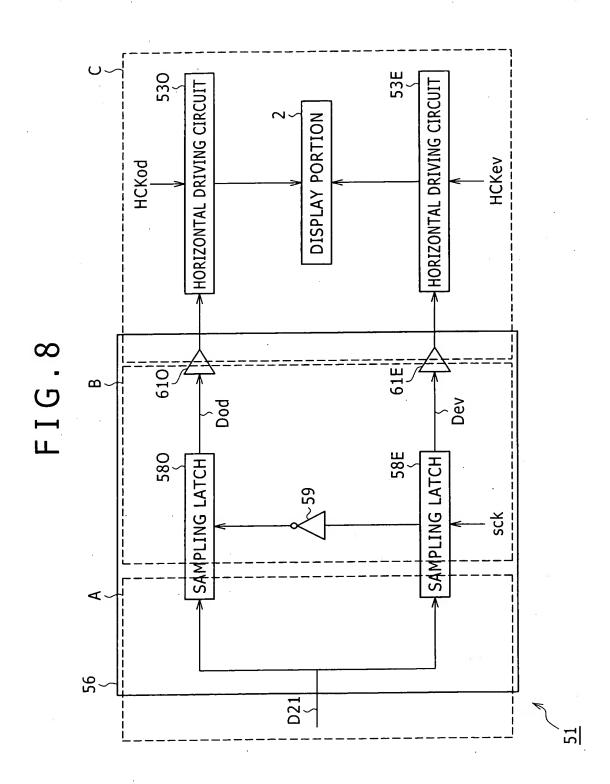
6/11



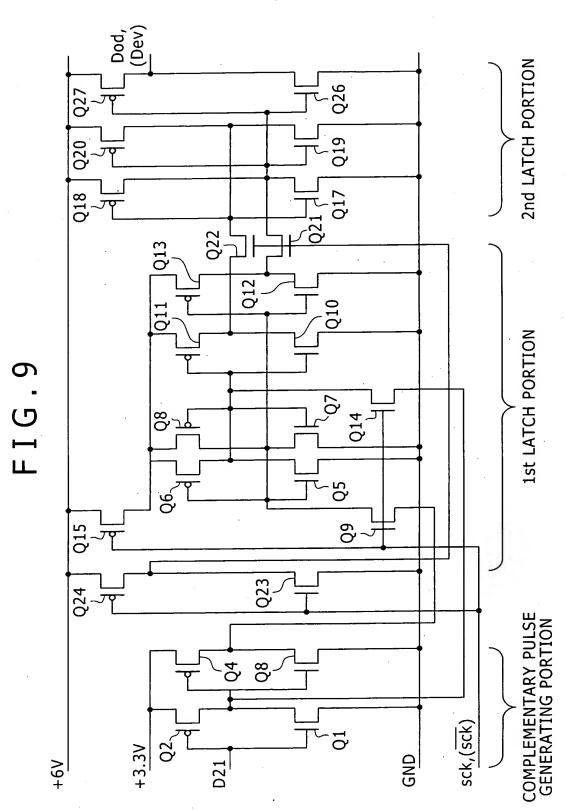
7/11



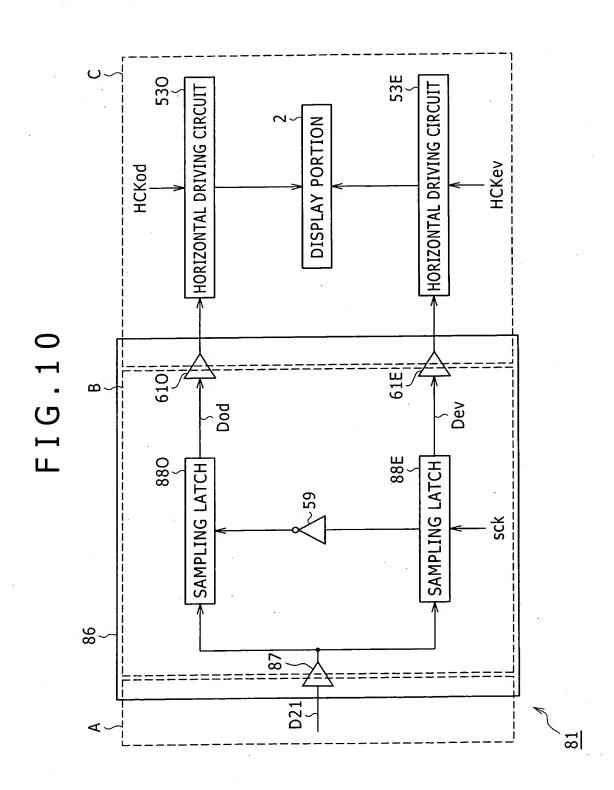
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10/11



11/11

1, 21, 51, 81 : LIQUID CRYSTAL DISPLAY APPARATUS

2: DISPLAY PORTION

30, 3E, 230, 23E, 530, 53E: HORIZONTAL DRIVING CIRCUIT

5: VERTICAL DRIVING CIRCUIT

6, 26, 56, 86 : SERIAL-PARALLEL CONVERTER

7, 27 : TIMING GENERATOR

80, 8E, 12O, 12E, 28O, 28E, 32O, 32E, 42, 42R, 42G, 42B, 58O, 58E,

880, 88E: SAMPLING LATCH

9, 29 : INVERTER

100, 10E: PHASE ADJUSTING CIRCUIT

110, 11E, 310, 31E, 610, 61E: DATA OUTPUTTING CIRCUIT

130, 13E, 330, 33E, 43, 43R, 43G, 43B: LATCH

140, 14E, 340, 34E, 44, 44R, 44G, 44B : DIGITAL TO ANALOG

CONVERTER

45: SHIFT REGISTER

87: LEVEL SHIFTING CIRCUIT

Q1-Q15, Q17-Q24, Q26, Q27 : TRANSISTOR